



A State Energy Program Partner

Kentucky Office of Energy Policy

Deploying Renewable Energy and Energy Efficiency across the Commonwealth

"Leveraging the State Energy Program with state resources provides a powerful tool that helps to educate Kentuckians about renewable energy and energy efficiency... this creates new opportunities and new jobs for Kentucky."

- Andrew McNeill, Acting Executive Director, Kentucky Office of Energy Policy

About the State Energy Program

The State Energy Program (SEP) is the only federally funded, state-based program (administered by the U.S. Department of Energy) that provides resources to the states for their deployment in addressing local renewable energy and energy efficiency needs and opportunities.

The Commonwealth provides a 20 percent match for SEP funding and then seeks to leverage these resources through public-private partnerships. Last year, nationally, SEP funding leveraged \$10.71 from non-federal sources for each \$1 of federal SEP funds.

SEP is a solid investment in Kentucky's, as well as our nation's, energy future.

January - June 2006 Program Update

National 2006 ENERGY STAR Awards for Kentucky

On March 30, Governor Fletcher and representatives from the Environmental Protection Agency (U.S. EPA) and the U.S. Department of Energy (U.S. DOE) recognized GE Consumer & Industrial of Louisville, Toyota Motor Manufacturing North America of Erlanger, the Kentucky



Office of Energy Policy (KOEP) and the McCreary County Community Housing Development Corporation for their outstanding contribution to the ENERGY STAR program. These national ENERGY STAR award winners were selected from over 8,000 organizations that participate in the ENERGY STAR program. The ENERGY STAR awards acknowledge leading companies and organizations for their outstanding contributions to environmental protection through energy efficiency.

Governor's ENERGY STAR Declaration

Kentucky became only the fourth state in the nation to be declared an ENERGY STAR partner by the U.S. DOE and the U.S. EPA during a ceremony on March 30 in Frankfort. Kentucky now has over 107 ENERGY STAR partners.



\$95,000 Energy Grant Awarded to the University of Kentucky for ENERGY STAR Projects

Governor Ernie Fletcher announced the award of a \$95,176 grant from KOEP to the University of Kentucky (UK) to promote energy efficiency education throughout the Commonwealth. The grant will be used to support an ENERGY STAR circuit rider who travels across the state promoting ENERGY STAR at events including home and garden shows and electric cooperative annual meet-

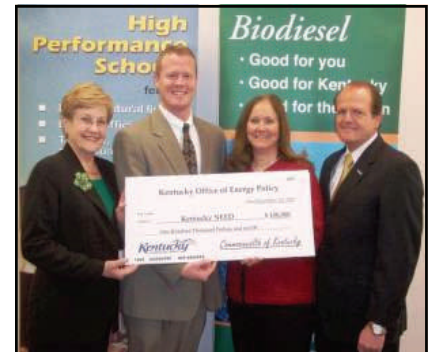
ings, as well as a large exhibit at the Kentucky State Fair. This year the UK circuit rider will deliver the ENERGY STAR message to more than 14 percent of Kentucky's population at 50 events across the Commonwealth. This grant helps to educate UK Cooperative Extension Agents about ENERGY STAR and energy efficient practices. These agents, in turn, will take the energy efficiency message to Kentuckians in every county.

Kentucky Energy Efficiency Program for Schools (KEEPS) Program

Through a \$77,000 grant to the University of Louisville (U of L), KOEP helped start the Kentucky Energy Efficiency Program for Schools (KEEPS), which offers participating schools a complete package of tools, curriculum, training, coaching and expertise to help participating schools and universities save money through energy efficiency. U of L's Kentucky Pollution Prevention Center (KPPC) provides tools that allow schools to analyze and understand their energy consumption. They also provide training and help the schools identify and implement low-cost/no-cost energy-savings measures that have short payback periods. Energy costs for Kentucky's K-12 public schools now exceed \$126 million annually, up 41 percent since 2000. This program will help schools better manage these costs. The Kentucky NEED Project supports the K-12 curriculum component of KEEPS.

\$100,000 Energy Grant Awarded to Kentucky NEED

Kentucky NEED received a \$100,000 grant from KOEP for the design and delivery of an energy education program for teachers and students in grades K-12. Kentucky NEED is the state affiliate of the National Energy Education Development (NEED) Project. The NEED Project is dedicated to comprehensive, hands-on energy education. Materials and activities are designed to promote a non-biased understanding of the economic and environmental trade-offs of energy consumption and production so that students will be able to make educated decisions in the future. NEED programs traditionally increase interest and knowledge of energy and energy issues. During the year, this program will train over 200 teachers and impact over 13,000 Kentucky students.



\$70,000 in Energy Grants Awarded to the Kentucky Clean Fuels Coalition

The Kentucky Clean Fuels Coalition (KCFC) received a \$49,993 grant to establish a network of Kentucky public school bus fleets interested in using biodiesel or biodiesel blends. The grant funds will be used to buy-down the cost of biodiesel. Another \$20,000 grant was awarded to KCFC to provide partial funding for program administration of Kentucky's Clean Cities Program. The goal of KCFC is to improve air quality and support economic development across Kentucky by promoting the use of clean fuels. KCFC is a strong advocate for Kentucky's growing agriculturally-based biofuels industry.



Groundbreakings for Biodiesel Plants and Storage

KCFC and KOEP are working with stakeholders across the Commonwealth to grow Kentucky's biofuels industry. At a groundbreaking ceremony on May 18, Owensboro Grain Biodiesel, LLC was awarded funds for the construction of a biodiesel production facility that will have the capacity to generate as much as 50 million gallons of biodiesel annually. The Commonwealth presented checks totaling more than \$6 million to the company. On May 8, 2006, Estill County Judge Wallace Taylor celebrated the groundbreaking for the construction of a 3.2 million gallon/year biodiesel plant to be located in Irvine. Additionally, Marathon Oil Corp. plans to establish a 30,000-gallon biodiesel storage facility at its fuel terminal in Louisville by the end of 2006. The facility will help distribute biodiesel to retail outlets, across the Commonwealth.

High Performance Sustainable Schools Workshop

On March 23 & 24, KOEP partnered with the Kentucky NEED Project to produce the "High Performance Sustainable Schools Workshop" at Hebron, Kentucky. The workshop was designed for school superintendents, board members, facilities managers, architects and engineers who want to apply high performance concepts to their next construction or renovation project. Participants visited two of Kentucky's first high performance schools, and the experts who led these projects described and showed high performance design elements that improve the way schools are being built. Over 170 architects, engineers, superintendents and principals attended this seminar.





Four ENERGY STAR Schools Announced in the Commonwealth

For the first time, Kentucky has ENERGY STAR qualified schools in the state. The four schools include Henry Moss Middle School, Drakes Creek Middle School, and Warren East Middle School in Warren County, as well as Isaac Shelby Elementary in Jefferson County. Achieving the ENERGY STAR certification declares that these schools are some of the most energy efficient facilities in the Commonwealth. On average these schools use 33 percent less energy than a traditionally built school resulting in significant dollar savings over the life of the school building (in excess of 40 years).

Kentucky NEED Holds Energy Education Conference for Teachers

Kentucky NEED, in sponsorship with KOEP, held the "Energy & Education: Making the Connection" conference for educators in June. This fourth annual event has teachers spending five days touring Eastern Kentucky's energy facilities and connecting energy to the classroom. Thirteen formal and non-formal educators representing grades K-12 in Kentucky participated in the program.

Kentucky Helps Lead the Nation in Change a Light Pledges

Kentucky now ranks third in the nation in the per capita number of households who have taken the pledge. The 2,175 Kentuckians who have taken the pledge and changed at least one light in their home have prevented more than 1.5 million pounds of greenhouse gas emissions from being released and have removed the equivalent of 133 cars from the road for one year. Kentucky residents are showing that even with relatively low electricity rates, there are opportunities to save. Governor Ernie Fletcher and First Lady Glenna Fletcher encouraged all Kentuckians to take the "ENERGYSTAR Change a Light, Change the World" pledge this past October. Kentuckians are learning that switching to light fixtures or bulbs that have earned the ENERGY STAR label can make a real difference.



High Performance Home Workshops

During May and June, KOEP sponsored two, one-day workshops, "High Performance Homes from the Ground Up", as well as four separate half-day workshops, "Increasing Profits Through Tax Incentives" and a two half-day sessions, "Advanced Selling Techniques for ENERGY STAR Windows" in cities across Kentucky. The wide-ranging programs featured presenters from Southface, a nationally recognized organization with a 27-year history of providing objective, informative training sessions on how to build better homes. These workshops focused on the practical aspects of energy-efficient construction that can increase the marketability of the homes. Over 175 builders, HVAC contractors, product suppliers and others attended the eight workshops.

ENERGY STAR Homes Take Hold in Kentucky

During the past year, more than 800 ENERGY STAR labeled homes have been constructed in Kentucky, with over 75 percent of those built by Arlinghaus Builders. There are 45 ENERGY STAR builder partners in the Commonwealth, with Arlinghaus being one of 10 builders in the state who construct only ENERGY STAR labeled homes. The company constructs about 225 ENERGY STAR homes per year, primarily in Boone and Kenton Counties, which range in price from \$165,000 to \$450,000. Arlinghaus maintains model homes in five communities and is one of the largest homebuilders in Northern Kentucky. The company's enthusiasm for ENERGY STAR resulted from attending a KOEP high performance home workshop. An ENERGY STAR qualified home is typically 30 percent more energy efficient than traditionally built homes, which helps home owners save money on their heating and cooling bills.



"SEP allows us to reach Kentuckians at the local level by helping them understand the benefits and opportunities that renewable energy and energy efficiency provide....at a time of high energy costs and over-reliance on imported oil the need has never been greater."

- John Davies, Director, Division of Renewable Energy & Energy Efficiency, KOEP

Energy Research and Development Seed Grant for Renewable Energy and Energy Efficiency

KOEP has funded four research and development grants for renewable energy and energy efficiency initiatives for a total of \$421,461. Areas of research include improved biomass conversion, advanced aluminum melting systems, improved biodiesel production and enzymes for the conversion of corn-fiber to biofuels. This funding is building energy research and development intellectual capacity at Kentucky's public universities. These efforts focus on areas of need for Kentucky's communities, business and industries. Once proven successful through research and development these initiatives will be demonstrated and deployed in the Commonwealth.

\$295,000 Investment in Seven Energy Research Projects for Kentucky Yields \$1.1 Million from the Kentucky Rural Energy Consortium

On March 8, Governor Ernie Fletcher announced the award of grants totaling \$295,000 for energy research and development in the areas of renewable energy and energy efficiency by the Kentucky Office of Energy Policy. These awards will yield \$1.13 million in federal matching funds from the Kentucky Rural Energy Consortium (KREC). The seven research projects will be conducted by faculty from the University of Louisville (U of L) and the University of Kentucky (UK) and will focus on developing resource-responsible technologies and practices.

Energy Assessments

KOEP is collaborating with the University of Louisville (U of L) to offer an energy assessment and technology diffusion service to Kentucky's businesses and industries. Since January U of L's Kentucky Pollution Prevent Center has conducted 9 energy assessments of small to medium sized manufacturing plants. The Center is on track to surpass the 22 assessments, which identified over \$6 million in annual savings, it conducted last year. These assessments help Kentucky's industries stay profitable and stay local. KOEP supports U of L through a \$64,680 grant.

State Energy Savings Performance Contracts (ESPC)

In the first six months of this year, KOEP has assisted the Finance and Administration Cabinet to develop nine ESPC projects for state facilities across the Commonwealth. Agencies assisted include the Transportation Cabinet, Cabinet for Families and Health Services, Kentucky Community and Technical College System and the Department of Corrections. These projects have the potential of saving 20 to 35 percent in utility costs that represents an annual cost savings of nearly \$2.7 million.

Community Support

KOEP is involved in a variety of other activities including support for the Bluegrass Partnership for a Green Community (with Lexington-Fayette Urban County Government, Fayette County Public Schools and the University of Kentucky), the development of a Green and Healthy Schools awards program (with the KY Environmental Education Council and the KY Department of Education), and the annual Bluegrass Energy Expo (organized by Appalachia – Science in the Public Interest). Other KOEP program activities provide direct support for U.S. DOE's Rebuild America and Building Energy Codes and Standards programs as well as providing general information to the public about solar and other renewable energy opportunities.

Kentucky Energy News Outreach

KOEP produces Kentucky's only electronic, weekly update of energy prices and issues that helps Kentuckians assess energy trends throughout the year. The two-page update captures current events of local interest relating to energy issues and highlights energy commodity prices.

For More Information

For a copy of Kentucky's comprehensive energy strategy, *Kentucky's Energy: Opportunities for Our Future*, or to learn more about Kentucky's renewable energy and energy efficiency programs, please visit the Kentucky Office of Energy Policy online at www.energy.ky.gov.



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